

REMARKS

DRAWINGS

The Examiner has indicated that, in the event Applicants wishes to use the color drawings currently on file as acceptable drawings, a petition must be filed for acceptance of the color photographs or color drawings as acceptable drawings. Contemporaneously with this filing, rather than filing such a petition, Applicants are submitting a full set of replacement line drawings.

CLAIMS

Claims 1-25 were previously presented. In the present amendment, Claim 23 has been amended, and no claims have been cancelled. Accordingly, after entry of the present amendment, Claims 1-25 will be pending in the application.

CLAIM REJECTION – 35 U.S.C. §112

Claims 23 and 24 were rejected as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. In regard to Claim 23, the Examiner alleges the phrase “or the like” renders the claim indefinite because the claim includes elements not actually disclosed (those encompassed by “or the like”), thereby rendering the scope of the claim unascertainable.

Applicants have amended Claim 23 to remove the phrase “or the like”.

CLAIM REJECTIONS - 35 U.S.C. §102/§103

Claims 1, 2, 8, and 9 were rejected under 35 U.S.C. 102(b) as being allegedly anticipated by U.S. Patent No. 6,448,500 (issued to Hosaka et al). The Examiner also has rejected Claims 3-

7, and 10-25 under 35 U.S.C. §103(a) as allegedly being unpatentable over Hosaka et al in view of U.S. Patent No. 6,328,747 (issued to Nun).

Applicants respectfully traverse the foregoing rejections.

Of the above-referenced rejected claims, Claims 1, 8-10, 17, 23, and 25 are independent. Accordingly, once patentability of those claims is established, all claims depending from them (including all other pending claims) are likewise allowable.

35 U.S.C. §102

In the current rejections, the Examiner has principally relied upon the Hosaka reference. Applicants respectfully submit that Hosaka is directed to a different problem than is Applicants' invention, and Hosaka does not address the problem solved by Applicants' invention, and in fact teaches "away" from Applicants' invention.

Applicants' invention is directed to "forming" or "running in" the dielectric on cables, so that the signal communication over those cables can occur in a more desirable/consistent manner. As stated in Applicants' Abstract, for example, "[t]he present invention relates generally to methods and apparatus of connecting and communicating signals between electrical devices. More particularly, the present invention relates to biasing a dielectric with an electrical or electrostatic potential to reduce undesirable electrical properties of the material such that signal quality between the electrical devices is enhanced."

Further in this regard, "[a] preferred aim of any arrangement of [Applicants'] biasing apparatus within the cable would be to enable the cable to reach a "steady state" dielectrically based on independent (non-signal) biasing, so that after reaching that steady state, transmitting

signal along the cable would have little, if any, noticeable effect on the quality of the signal being transmitted . . .” (Applicants’ original disclosure at page 21, lines 14-18).

Applicants even noted in their application that, “... in almost all cables that do not include the present invention, the ‘run-in’ condition must be re-established (the cable must be ‘re-formed’) each time the electrical device is turned back on.” Applicants’ Detailed Description, par. 21. That point of distinction appears to apply even to Hosaka’s cables.

Another paragraph of Applicants’ Detailed Description summarizes this point of distinction in another way:

“The imposition of energy on the cable’s dielectric thus preferably occurs even when the devices and cable are not in use and even when the cable is not connected to any components. In certain applications of the invention, the bias can even be applied far in advance of a consumer’s purchase of the cable or other device, and the run-in or “forming” of the cable or device can occur completely before the consumer/user even connects the cable or device for the first time. The biasing will continue automatically even when the user turns off his audio/video system, so long as the battery or other biasing source continues. As mentioned above, and as explained further below, for embodiments using batteries, those presumably will need to be replaced periodically (although not too often, as there is no current being drawn from the batteries).” Applicants’ Detailed Description, par. 24.

In contrast to Applicants’ inventions, Hosaka is directed to reducing cross-talk between multiple twisted pair wires within a single shielded cable. “Cross-talk” or other signal degradation on those multiple twisted pair wires 31 occurred in prior art cables (see, for example, Hosaka’s Fig. 4) because the relationship of those multiple twisted pair wires (both with respect to each other and with respect to the shielded conductor 33) were not sufficiently “uniform” along their length. A “stable impedance” cannot be obtained from such prior art cables (see Hosaka’s Fig. 4 prior art cable; col. 1, l. 49-57).

Hosaka notes that one previous solution to the “cross-talk” problem was to shield each of the twisted pair wires 31. This was too expensive, and created too large a transmission loss. Col. 1, l. 60-67.

Instead of shielding every twisted pair, Hosaka teaches to add a further, separate shield 3 around the power lines 2, which helps establish a more uniform distance between the twisted pairs and therefore a “stable impedance … over the entire length of the cable” (col. 2, l. 31-33), with the result that “cross-talk hardly occurs.” Col. 2, l. 3-4. By adding that separate shield 3, Hosaka actually reduces or eliminates the possibility that power/current in those power lines 2 (located inside the shield 3) might bias any dielectric in the signal wires 4 outside the shield 3.

Accordingly, contrary to the Examiner’s assertions, it does not appear that Hosaka’s power wires 2/2a within the shield 3 can “bias” the twisted pair 4 located outside the shield 3. Said another way, the power supply wires 2 are not positioned so as to affect or bias the signal-associated dielectric 4a as required by at least Applicants’ independent Claims 1, 8-10, 17, 23, and 25.

Further in this regard and as shown in Figure 1, the power supply lines 2 of Hosaka et al are surrounded by an inner conductive shield 3 that further isolates or disassociates the power supply wires 2 from the signal-associated dielectric 4a. According to Hosaka, “a portion between the power supply pair wires and the plurality of twisted pair wires for signals is shielded with the inner conductive shield, thereby making it possible to prevent interference therebetween. (Column 3, lines 3-6, emphasis added).

Accordingly, Hosaka et al does not disclose, teach, or otherwise suggest the following elements/inventions claimed by Applicants:

- (i) dielectric material positioned along a first conduction (signal) path . . . and a means for impressing a bias potential across said dielectric material (Claim 1);
- (ii) a means for receiving a bias potential, the receiving means associated with a first conduction (signal) path . . . and a means for impressing the bias potential across a selected portion of the receiving means such that the bias potential is impressed across the dielectric (Claim 8); and
- (iii) a first conductor defining a signal path . . . a dielectric associated with the first conductor . . . and a means for impressing a bias potential across the dielectric (Claim 9).

Similarly to independent Claims 1, 8, and 9, Applicant's independent Claims 10, 17, 23, and 25 require biasing of a signal-associated dielectric with an independent energy source.

Accordingly, Applicants respectfully submit that Hosaka et al does not teach, disclose, or make obvious Applicants' claimed inventions.

35 U.S.C. §103

In view of the remarks set forth above in regard to Hosaka, Applicants respectfully submit Hosaka and Nun, alone or in combination, do not teach, disclose, or make obvious Applicants' claimed system.

Nothing in the Nun reference appears to make up for the aforementioned shortcomings of Hosaka. Among other things, Nun is directed to a cataract removing device, and appears to have little relevance to Applicants' invention. For example, the power circuit in Nun's Fig. 8 appears to simply show use of a battery 106 as a power supply for operating cryo control 104 and/or

heater 74. Nun (including the aforementioned Fig. 8) does not appear to teach or disclose or appreciate biasing of dielectrics within signal-carrying cables.

In short, it appears that Nun is not proper prior art reference. In this regard, the aforementioned cited reference is neither in the field of the inventors' endeavor or reasonably pertinent to the specific problem with which the inventor was involved. (*In re Deminski*, 796 F.2d 436, 442, 230 USPQ 313, 315 (Fed. Cir. 1986). This element has been alternatively expressed as requiring the references relied on to be in an art analogous to that of the invention. "The rationale behind this rule precluding rejections based on . . . teachings of references from nonanalogous arts is the realization that an inventor could not possibly be aware of every teaching in every art. (*In re Wood*, 599, F.2d 1032, 202 USPQ 171, 174 (C.C.P.A. 1079).

The Federal Circuit has clarified how to determine whether a reference is reasonably pertinent to the particular problem with which the inventor was involved. The Federal Circuit has stated:

[a] reference is reasonably pertinent if . . . it is one which, because of the matter with which it deals, logically would have commended itself to the inventor's attention in considering the problem . . . If a reference disclosure has the same purpose as the claimed invention, the reference relates to the same problem . . . [I]f it is directed to a different purpose, the inventor would accordingly have had less motivation or occasion to consider it. (*In re Clay*, 966 F.2d 656, 23 USPQ 2d 1058, 1060-61 (Fed. Cir. 1992).

In this regard, Applicants' respectfully submit that cited Nun reference does not deal with the subject matter of Applicants' invention (cable technology). Furthermore, the Nun reference does not address Applicants' disclosed problem (enable a cable to reach a "steady state" dielectrically).

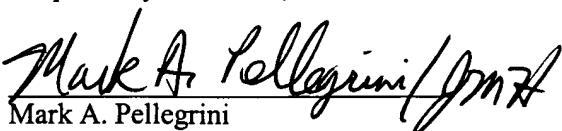
In contrast to Applicants' invention, Nun relates to the field of devices for eye surgery in general and to the field of devices for cataract surgery in particular. Among other things, Nun seeks to provide an improved device for manipulating tissue during surgery. (Column 2, lines 45-50)

In view of the amendments and remarks set forth herein, it is thought that the application, including Claims 1-25, are now in condition for allowance, notice whereof is respectfully requested of the Examiner.

If the Examiner believes it would help resolve any remaining questions or issues regarding the foregoing, Applicants respectfully invites the Examiner to contact Applicants' undersigned attorney at (949) 718-6750.

Respectfully submitted,

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